

T.C. Memo. 1999-368

UNITED STATES TAX COURT

ESTATE OF HELEN J. SMITH, DECEASED, FREDERIC L. FOILL II AND
CASSANDRA F. VALLERY, CO-EXECUTORS, Petitioner y.
COMMISSIONER OF INTERNAL REVENUE, Respondent

Docket No. 25881-96.

Filed November 5, 1999.

Aaron P. Rosenfeld and Richard R. Stedman, for petitioner.

Edward L. Walter, for respondent.

MEMORANDUM FINDINGS OF FACT AND OPINION

GALE, Judge: Respondent determined a deficiency of \$522,710 in petitioner's Federal estate tax. We must decide the value of Helen J. Smith's shares of stock in two companies, Jones Farm Inc. (JFI), and First National Bank of Waverly (FNBW), as of her death on January 25, 1993. When she died, Helen J. Smith

(decendent) held one-third of the stock of JFI and 12 percent of the stock of FNBW.

Unless otherwise noted, all section references are to the Internal Revenue Code in effect as of the date of decedent's death, and all Rule references are to the Tax Court Rules of Practice and Procedure.

FINDINGS OF FACT

Some of the facts have been stipulated and are so found. We incorporate by this reference the stipulation of facts, the supplemental stipulation of facts, and the attached exhibits. At the time of filing the petition, coexecutor Frederic L. Foill II resided in Waverly, Ohio, and the estate of decedent was administered in Pike County, Ohio. The parties have stipulated that the estate had a Waverly, Ohio, address at the time the petition was filed.

JFI

JFI was an Ohio corporation that operated a farm in Pike County, Ohio, that had been in decedent's family for many years. JFI was an S corporation within the meaning of section 1361(a). Pike County is a rural, primarily agricultural county with low economic growth. In 1942, decedent and her two sisters each inherited a one-third interest in their father's farm. When the farm was later incorporated as JFI, each sister received

one-third of the shares of stock. At the time of her death, decedent owned one-third, or 195, of the total 585 shares.

The farm was situated on approximately 1,300 acres, half of which were bottomland subject to flooding and half of which were forest and pasture. JFI was actively engaged in farming, with earnings for the years from 1988 through 1992 varying from a low of \$9,243 in 1990 to a high of \$28,145 in 1992. JFI paid dividends only in amounts sufficient to meet its shareholders' tax liabilities with respect to JFI's operations. JFI's farming operations were managed and conducted by an unrelated individual serving as farm manager pursuant to a contract of indefinite duration. The manager was compensated with a salary and various benefits, plus a 5-percent share of farm profits. On the date of decedent's death, the undiscounted value of JFI was \$1,818 per share.

On the estate tax return, petitioner claimed a value for decedent's shares in JFI of \$331.94 per share. In the notice of deficiency, respondent valued decedent's shares in JFI at \$1,636.32 per share. Respondent now concedes that the value of decedent's shares in JFI is no greater than \$1,029 per share.

ULTIMATE FINDING OF FACT

The fair market value of decedent's 195 shares in JFI at the date of decedent's death was \$439 per share, or a total of \$85,605.

FNBW

FNBW was a corporation that operated a bank in Pike County, Ohio, that had been in decedent's family for many years. On the date of decedent's death, there were 100,000 shares of FNBW outstanding and 95 shareholders. Decedent owned 12,000 shares in FNBW when she died. On December 31, 1992, 25 days before decedent's death, FNBW's total assets were \$103,884,000 and total stockholder equity was \$11,249,000. In the period from 1988 through 1992, FNBW's earnings increased each year from \$917,000 in 1988 to \$1,423,000 in 1992. In the same period, its dividends also increased each year from \$348,000 in 1988 to \$640,000 in 1992.

On the estate tax return, petitioner claimed a value for decedent's shares in FNBW of \$73.67 per share. In the notice of deficiency, respondent valued decedent's shares in FNBW at \$159.53 per share.

ULTIMATE FINDING OF FACT

The fair market value of decedent's 12,000 shares in FNBW at the date of decedent's death was \$98 per share, or a total of \$1,176,000.

OPINION

We must decide the fair market value of decedent's shares of stock in JFI and FNBW on the date of decedent's death on January 25, 1993. Both parties rely upon expert opinions.

Fair market value is defined as "the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts." United States v. Cartwright, 411 U.S. 546, 551 (1973) (quoting sec. 20.2031-1(b), Estate Tax Regs.). Expert opinion sometimes aids the Court in determining valuation; other times, it does not. See Laureys v. Commissioner, 92 T.C. 101, 129 (1989). We evaluate such opinions in light of the demonstrated qualifications of the expert and all other evidence of value in the record. See Estate of Newhouse v. Commissioner, 94 T.C. 193, 217 (1990). We are not bound, however, by the opinion of any expert witness when that opinion contravenes our judgment. See id. We may accept the opinion of an expert in its entirety, see Buffalo Tool & Die Manufacturing Co. v. Commissioner, 74 T.C. 441, 452 (1980), or we may be selective in the use of any portion thereof, see Parker v. Commissioner, 86 T.C. 547, 562 (1986).

The best method to value a corporation's stock is to rely on actual arm's-length sales of the stock within a reasonable period of the valuation date. See Estate of Andrews v. Commissioner, 79 T.C. 938, 940 (1982). There were no such sales for JFI or FNBW. Thus, all of the experts used less direct methods of valuation.

JFI

To support the values claimed for the JFI stock, petitioner presented the testimony and expert reports of Richard D. Hitt, Jr., of KPMG Peat Marwick (who had valued JFI for the estate tax return) and Thomas A. Egan, Jr., of Management Planning, Inc. (who had valued JFI in preparation for trial). Respondent presented the testimony and expert report of Travis Keath of Business Valuation Services, Inc. The parties stipulated that all of these experts were qualified appraisers.

The parties stipulated that the undiscounted value of JFI was \$1,818 per share, and the task of the appraisers was to decide to what extent to discount this value to reflect the value of decedent's one-third stock interest in the corporation at the time of her death. Each of the experts calculated two discounts: A minority interest (or lack of control) discount and a lack of marketability discount.

Expert Opinion of Mr. Egan

Mr. Egan used two methods to value JFI: An asset method, based on a comparison of the price-to-asset ratio of JFI with the price-to-asset ratio of companies that in his judgment were generally comparable to JFI; and an earnings method, based on the investment value of JFI's projected stream of earnings.

Asset Value

Mr. Egan's approach was first to select a group of companies comparable to JFI for which net asset value and market value (i.e., price of stock) were known. He then calculated the amount by which the net asset value of these companies was discounted in reaching market value. Finally, he adjusted this discount and applied the adjusted discount to the net asset value of JFI to compute its market value. The comparable companies were publicly traded, so the market value of each was determined from the sale price of shares of stock on the date of decedent's death. Each sale of stock was of a minority interest. Thus, the discount from net asset value that Mr. Egan calculated for the comparable companies reflected the minority interest discount that he was trying to determine.

From 117 real estate companies and real estate investment trusts for which data was publicly available, Mr. Egan selected 15 companies that in his view were comparable to JFI. For each company, he computed market value (i.e., market price of outstanding shares) as a percentage of net asset value and took the median of these percentages, which was 41.3 percent. Stated in terms of a discount, the market value of the median company equaled its net asset value discounted by 58.7 percent. Mr. Egan also calculated earnings, cash-flow, and dividends, each as a percentage of net asset value. The median of these percentages

was close to or equal to zero, indicating to Mr. Egan that the companies he chose were valued, for the most part, on the basis of assets rather than on the basis of earnings, cash-flow, or dividends. Considering all relevant factors, Mr. Egan believed that decedent's shares of stock in JFI would sell at a discount from net asset value less than the discount for the comparable companies, so he chose a discount of 50 percent. Thus, for his final step, Mr. Egan applied the discount of 50 percent to a figure for net asset value for JFI of \$1,063,610, for an asset-based value of \$532,000.

Earnings Value

Mr. Egan's approach was to calculate the present value of JFI's future earnings stream by developing an estimate of future earnings, to which he applied a capitalization rate in order to discount future earnings back to present value. The capitalization rate employed was equal to the rate of return that, in Mr. Egan's opinion, an investor would require before deciding to invest in JFI.¹

To estimate the future earnings of JFI, Mr. Egan began with average annual earnings of JFI for the 5 years previous to 1993 in the amount of \$18,111. He also calculated a 5-year weighted

¹ In general, the inherent risk in an investment is directly proportional to the required rate of return from the investment. Thus, the riskier the investment, the higher the rate of return required by the investor.

average of \$19,263.² He took the average of these two figures, or \$18,687. Finally, to calculate earnings for 1993, the year of decedent's death, he increased the average earnings figure by an inflation factor of 4 percent, for a total of \$19,435. This was the income stream to which he applied the capitalization rate.

To calculate the capitalization rate, Mr. Egan began with the rate of return for a risk-free investment, using the rate of return on long-term U.S. Government bonds as of the date of decedent's death, or 7.53 percent. He then attempted to quantify the risk inherent in an investment in JFI, using a study by Ibbotson Associates that estimated the historical rate of return of stocks as compared to the historical rate of return of long-term Government bonds. On the basis of the Ibbotson study, Mr. Egan concluded that investments in smaller companies in general required a 12.4-percent greater return than investments in Government bonds. But Mr. Egan believed that JFI was an even riskier investment than the smaller companies represented in the Ibbotson study.³ He, therefore, added an additional 10 percent to the capitalization rate to account for the risk inherent in investing in JFI in particular. This gave him a total of 29.93

² He gave the earnings figure from the most recent year, 1992, a weight (or multiplier) of 5, the figure from the preceding year, 1991, a weight of 4, and so on, with the figure from 1988 receiving a weight of 1. He then summed the products and divided the total by 15, the sum of the weights applied.

³ According to Mr. Egan, JFI was much smaller than the smaller companies represented in the Ibbotson study.

percent (7.53 + 12.4 + 10), which he rounded to 30 percent.

Finally, because he assumed that JFI would grow at a rate of 4 percent, he subtracted 4 percent to reflect the rate he believed an investor would require, 26 percent.

Mr. Egan's last step in computing an earnings-based value of JFI was to divide the estimated future earnings by the capitalization rate: $\$19,435 \div .26 = \$74,750$, which he rounded to \$75,000.

Weighting the Two Values

Mr. Egan believed that the greater part of the value of JFI was due to the value of its assets rather than the value of its earnings. He believed that in the case of asset-based companies with low earnings, such as JFI, investors place more emphasis on underlying asset value. This belief was confirmed by his examination of the 15 comparable companies, which reflected a median earnings rate of return of zero. Thus, he gave 70 percent of the weight of the total value of JFI to the asset-based value of \$532,000 and 30 percent to the earnings-based value of \$75,000. This resulted in a value of \$395,000, or \$675 per share.

Lack of Marketability Discount

Finally, Mr. Egan calculated a lack of marketability discount to reflect that fact that there was not a readily available market for decedent's shares in JFI. Mr. Egan's

approach was to examine publicly traded companies and to compare sales of stock in the companies on a public market with other sales of stock in the same companies on a restricted market. To do this, Mr. Egan examined sales of unregistered shares of stock, which were sold in private, unregistered transactions. Mr. Egan reviewed a list of 137 private placements of shares of stock. He then removed certain sales that he did not feel were comparable to a sale of stock in JFI, such as sales where the common stock of the company was not traded on an open market or where the company had had a recent public offering; sales involving "start-up companies", defined as companies with less than \$3 million in sales; and sales involving companies the stock of which was traded on a large stock exchange such as the New York Stock Exchange. From the remaining list, he computed a median discount of 29.1 percent.

From this figure, Mr. Egan made an additional adjustment of 5.9 percent to account for two differences between the JFI stock and the unregistered stock he was examining: (1) Unregistered stock in general can, within 2 or 3 years, be sold on a public market, making it more marketable than stock in JFI; and (2) JFI was not held to the same disclosure standards as public companies, making the stock in JFI less marketable, in Mr. Egan's view. Mr. Egan's final lack of marketability discount was 35 percent (29.1 percent + 5.9 percent). Applying this discount to

his weighted value for JFI, Mr. Egan estimated the value of JFI to be \$439 per share (\$675 per share less 35 percent). Thus, according to Mr. Egan, the fair market value of decedent's interest in JFI was \$85,605 (195 shares x \$439 per share).

Court's Analysis

We find Mr. Egan's report to be very persuasive and well supported by his underlying reasoning. We conclude, largely on the basis of Mr. Egan's report, that the fair market value of decedent's interest in JFI was \$439 per share on the date of her death. Mr. Keath's report, the only support for the substantially higher value determined by respondent, was seriously flawed and unpersuasive.

It is well established that, in general, an asset-based method of valuation applies in the case of corporations that are essentially holding corporations, while an earnings-based method applies for corporations that are going concerns. See Estate of Ford v. Commissioner, T.C. Memo. 1993-580, affd. 53 F.3d 924 (8th Cir. 1995). JFI has characteristics of both, given the significance of real property in a farming operation, and we find that it is appropriate to consider both asset- and earnings-based values. As we said in Estate of Andrews v. Commissioner, 79 T.C. at 945:

regardless of whether the corporation is seen as primarily an operating company, as opposed to an investment company, courts should not restrict consideration to only one approach to valuation, such

as capitalization of earnings or net asset values. Certainly, the degree to which the corporation is actively engaged in producing income rather than merely holding property for investment should influence the weight to be given to the values arrived at under the different approaches but it should not dictate the use of one approach to the exclusion of all others. [Citations and fn. ref. omitted.]

It is clear that assets were the largest contributor to the value of JFI. At the same time, since we are valuing shares in a corporation rather than the assets themselves, the corporation's status as an operating business must be taken into account, which is accomplished by considering income-based indicators of value. See id. at 946. However, as we said in Estate of Andrews v. Commissioner, supra at 944: "the value of the underlying real estate will retain most of its inherent value even if the corporation is not efficient in securing a stream of * * * income." We believe that Mr. Egan properly considered all of these factors in giving 70 percent of the weight to asset-based value and 30 percent to earnings-based value.

Respondent's primary dispute with Mr. Egan's, and more broadly petitioner's, approach to valuing JFI is the fact that Mr. Egan gave some weight to earnings-based value, whereas respondent believes the value of JFI should be based solely on its assets. Respondent argues that the disparity between the asset-based and earnings-based values demonstrates that only an asset-based value should be used. This argument is unpersuasive

on its face; by the same argument, the disparity demonstrates that only an earnings-based value should be used. Respondent also argues that as an investment, JFI was valuable only for the potential appreciation of assets rather than for the stream of income. Respondent bases this argument in part on JFI's policy of paying dividends only in amounts sufficient to meet the tax liability it generated as a subchapter S corporation for its shareholders. We note, however, that the regulations point to "prospective earning power and dividend-paying capacity", rather than actual dividends paid, as an indicator of value. Sec. 20.2031-2(f)(2), Estate Tax Regs. (emphasis added). Further, the farm manager's compensation was based in part on a share of JFI's profits, weakening any suggestion by respondent that JFI's earnings were artificially low.

As for lack of marketability, respondent does not dispute Mr. Egan's use of a 35-percent discount. As will be seen below, respondent's expert, Mr. Keath, applied a lack of marketability discount of 36.8 percent.

Expert Opinion of Mr. Hitt

Mr. Hitt also valued JFI using an asset-based method and an earnings-based method.

Asset-Based Value

In connection with determining an asset-based value, Mr. Hitt used a 38-percent minority interest discount. To calculate this number, he began with Mergerstat Review, which contains data from sales of bank stock in merger transactions, and made adjustments to account for the fact that JFI was not a bank. Applying his minority interest discount of 38 percent to the undiscounted per-share value of \$1,818 resulted in a value of \$1,127 per share.

To compute a lack of marketability discount, Mr. Hitt started with a figure of 45 percent, based, according to him, on a comparison to restricted securities and studies of the prices of stocks before initial public offerings. He increased the discount to 50 percent because he believed there would be some difficulty in selling the farm and to account for costs in selling the farm.⁴ Applying the lack of marketability discount to the discounted per-share value of \$1,127 resulted in a value of \$564 per share.⁵

⁴ Mr. Egan used a 50-percent minority interest discount and a 35-percent lack of marketability discount, very similar, in end result, to Mr. Hitt's 38-percent minority interest discount and 50-percent lack of marketability discount.

⁵ If Mr. Egan had applied his lack of marketability discount before weighting the two values, as Mr. Hitt did, his asset-based value would have been \$591 per share.

Earnings-Based Value

Mr. Hitt's approach in determining an earnings-based value was basically the same as Mr. Egan's. To estimate earnings for 1993, Mr. Hitt started with a figure of earnings from operations of \$26,537, and assuming a 7-percent growth rate, he calculated projected earnings for 1993 of \$28,395.⁶ For his capitalization rate, Mr. Hitt relied on the Capital Asset Pricing Model, under which, according to him, the capitalization rate is calculated by adding the risk-free investment rate as of the valuation date with the product of the risk-free rate and an "equity beta". The equity beta is a measurement of the risk of investing in a specific company in relation to the risk of investing in the market overall. A beta of 1 means that the company and the market are equally risky; a beta greater than, or less than, 1 means the specific company is riskier or less risky, respectively, than the market overall. Mr. Hitt used the rate for 10-year U.S. Government bonds, 7.2 percent according to him, as the risk-free rate. His figure for beta was determined from large publicly traded agribusinesses.⁷ In addition, he added a small-company risk premium of an unstated amount. He computed a

⁶ In contrast, Mr. Egan used a 1993 earnings figure of \$19,435. Mr. Egan's figure was based on averages of JFI's earnings over 5 years, which fluctuated between a low of \$9,243 in 1990 and a high of \$28,145 in 1992. Mr. Hitt used normalized earnings from 1992 only in estimating his 1993 earnings figure.

⁷ He did not state what figure he used for beta.

rate of 18 percent, which he reduced by 7 percent expected growth, resulting in a capitalization rate of 11 percent.⁸ To compute his earnings-based value for JFI, he divided earnings of \$28,395 by the capitalization rate of .11 for a value of \$258,133. A one-third interest was therefore worth \$86,044.

To compute a lack of marketability discount, Mr. Hitt started with the figure of 45 percent based on restricted stock sales, as he did with the asset-based value calculation. Here, however, he did not increase the discount to 50 percent, as he did in the case of the asset-based value. In valuing JFI as a going concern, he did not feel that he should take into account transaction costs such as the cost of selling the assets. Applying the lack of marketability discount resulted in a value of \$47,324, or \$243 per share.⁹

Weighting the Values

Mr. Hitt believed that the greater part of the value of JFI was due to the value of its earnings rather than the value of its assets. He gave 75 percent of the weight of the total value of JFI to the earnings-based value of \$564 per share, and 25 percent to the asset-based value of \$243 per share. This resulted in a value of \$323 per share.

⁸ Mr. Egan used a risk-free rate of 7.53 percent and a capitalization rate of 26 percent.

⁹ If Mr. Egan had applied his lack of marketability discount before weighting the two values, as Mr. Hitt did, his earnings-based value would have been \$83 per share.

Court's Analysis

We found Mr. Hitt's approach to be less useful than Mr. Egan's, largely because he did not provide as much detail from which we could judge the merits of his reasoning. Moreover, we believe that his decision to give 75 percent of the weight to earnings-based value and 25 percent to asset-based value was incorrect, considering all the facts and circumstances of JFI. As we noted earlier, "the value of the underlying real estate will retain most of its inherent value even if the corporation is not efficient in securing a stream of * * * income." Estate of Andrews v. Commissioner, 79 T.C. at 944. Mr. Hitt's choice of weights ignores this principle. Ultimately, however, we note that by applying Mr. Egan's weighting but otherwise accepting Mr. Hitt's report, we reach a result fairly close to the value of JFI we have found to be correct. Applying a weight of 70 percent to Mr. Hitt's asset-based value of \$564 per share and 30 percent to his earnings-based value of \$243 per share results in a value of \$468 per share, a value much closer to the Court's value of \$439 per share than to the value proposed by respondent of \$1,029 per share.

Expert Opinion of Mr. Keath

In valuing the JFI stock, Mr. Keath calculated an asset-based value only, because he believed that no part of the value of JFI should be attributed to earnings.

Minority Interest Discount

To determine an appropriate minority interest discount to apply to his asset-based value, Mr. Keath used a list of 13 publicly traded real estate investment trusts (REIT's) culled from Realty Stock Review. As with Mr. Egan's approach, the underlying premise for using publicly traded companies was that each trade of shares of stock involved a minority interest, and therefore the prices at which the shares were traded reflected any inherent minority interest discount. He computed the average by which market value of equity plus debt (which he termed total capital) exceeded net asset value plus debt. By Mr. Keath's computation, the average REIT reflected a premium for a minority interest rather than a discount: On average, the market value of total capital exceeded net asset value plus debt by 1.5 percent.

The next step in Mr. Keath's analysis was to make adjustments to this figure of 1.5 percent to account for the differences between JFI and the average REIT. His method was to compile a list of 12 characteristics of REIT's, and then to assess whether JFI was higher or lower than the average with respect to each characteristic. The premise underlying Mr. Keath's method was that 95 percent of all REIT's would fall within two standard deviations of the average REIT, and therefore that there was a 95-percent chance that each of the 12

characteristics would be within two standard deviations of average.

After completing his analysis, he found that JFI differed from the average REIT by -11.7 percent. Since the average REIT reflected a minority interest premium of 1.5 percent, JFI would reflect a minority interest discount of -10.2 percent (1.5 percent - 11.7 percent).

Lack of Marketability

Mr. Keath used the same basic method to calculate a discount for lack of marketability. From various studies of restricted stock sales, Mr. Keath estimated that the average discount for lack of marketability for operating companies was 30 percent. From this figure, he made adjustments using eight characteristics to find that JFI reflected a greater discount than the average REIT of 6.8 percent, resulting in a lack of marketability discount of 36.8 percent.¹⁰

Applying the Discounts

Mr. Keath then applied the 10.2-percent minority interest discount and the 36.8-percent lack of marketability discount to the undiscounted value of JFI of \$1,818 per share. In his

¹⁰ As noted previously, this figure is very close to the lack of marketability discount of 35 percent used by Mr. Egan.

opinion, at the time of her death decedent's 195 shares of JFI were worth \$1,029¹¹ per share, or a total of \$200,655.

Court's Analysis

We reject Mr. Keath's method entirely, for two reasons. First of all, Mr. Keath failed to consider earnings in his estimate of the value of JFI, basing his entire estimate on the assets of JFI. This, as we have already explained, was inappropriate, and Mr. Keath's failure to consider earnings value at all undermines the reliability of his report.

Second, we think that the details of Mr. Keath's analysis show that, whether or not his method might reach an acceptable result if properly applied, it was plainly misapplied in this case. Mr. Keath's method depends on the assumption that the REIT's he chose were a representative sample of all REIT's; if not, he could not claim that 95 percent of all REIT's fell within two standard deviations of the average. This is the fundamental problem with Mr. Keath's approach. We find it quite unlikely that the REIT's on Mr. Keath's list fell into a standard distribution.¹² The range among the REIT's he used varied

¹¹ Mr. Keath presumably did some rounding to reach this figure.

¹² There is no evidence in the record telling us how the REIT's were chosen by Realty Stock Review magazine. The reason Mr. Keath used this list was that it was the only list of REIT's he was aware of that included independently valued net asset values. He admitted that his standard deviation analysis assumed

(continued...)

enormously: On one end, market value of total capital exceeded net asset value plus debt by 75.4 percent; on the other, market value of total capital was less than net asset value plus debt by 42.2 percent. When market value of total capital exceeded net asset value plus debt, as it did for most of the REIT's in his sample, Mr. Keath referred to this as a minority interest premium. His report suggests that for a majority of REIT's, there is a substantial minority interest premium rather than a minority interest discount, and that the average REIT reflects a minority interest premium. The notion that there is a premium associated with a minority interest contradicts this Court's precedents, the weight of expert commentary, and common sense. See, e.g., Estate of Newhouse v. Commissioner, 94 T.C. at 249. The fact that Mr. Keath's data reflects this trend suggests that there is something wrong with his data, his analysis, or both.

Conclusion: The Value of Decedent's Shares in JFI

As we have stated, we believe that Mr. Egan's report is the most reliable and persuasive, and we accept his conclusions. Thus, we find that decedent's 195 shares in JFI at the time of her death were worth \$439 per share, or a total of \$85,605.

¹²(...continued)
a standard distribution for the REIT's in his sample, but he offered no evidence of this fact.

FNBW

As with JFI, there were no actual arm's-length sales of FNBW stock, and therefore all of the experts relied on less direct methods of valuing FNBW.¹³

Petitioner presented the testimony and expert reports of Mr. Hitt (who had valued FNBW for the estate tax return) and Mr. Egan (who had valued FNBW in preparation for trial). Respondent presented the testimony and expert report of Charles F. Haywood, a professor at the University of Kentucky. As noted above, the parties stipulated that Mr. Hitt and Mr. Egan were qualified appraisers. At trial, petitioner objected to the qualifications of Mr. Haywood but ultimately withdrew the objection. We found all of the reports to be useful, although all required adjustments to address certain flaws, in the Court's view.

Mr. Hitt's Report

Mr. Hitt used an exclusively earnings-based approach to value FNBW, combining three methods: Price to earnings (P/E) ratio, price to equity (P/Eqt) ratio, and capitalized future earnings.

¹³ There were some actual sales of the stock of FNBW in 1990 and 1991, but all three experts agree that none of them were at arm's length. In addition, there was an actual sale of stock in 1985 that may or may not have been at arm's length, but we find that it was not within a reasonable time of the valuation date in this case.

P/E Ratio, P/Eqt Ratio

For the P/E ratio and P/Eqt ratio methods, Mr. Hitt's approach was to compare the P/E and P/Eqt ratios of FNBW with those of comparable entities. Using the average ratios of the comparable companies and the earnings and equity of FNBW, Mr. Hitt sought to calculate the price (i.e., market value) of FNBW.

In selecting comparable companies, Mr. Hitt did not feel there were enough publicly traded companies from which he could derive comparable transactions, i.e., transactions involving banks of similar size and geographic market, so he did not compare FNBW to public companies. Instead, he examined acquisitions of banks located in Indiana or Ohio with less than \$300 million in assets, resulting in a list of seven banks that were sold within 18 months of the valuation date. Six of the seven were in Indiana; one was in Ohio. He reduced this list from seven to two, choosing banks with particular characteristics that were comparable to FNBW.¹⁴ The two banks satisfied each of the following three criteria (the respective figure for FNBW, according to Mr. Hitt's calculations, is in parentheses): Growth rate between 0 and 8 percent (6.2 percent), return on assets (ROA) between 1.0 and 1.4 percent (1.41 percent), and capital to asset ratio between 8.5 and 12.5 percent (10.83 percent).

¹⁴ According to Mr. Hitt, FNBW was "in the top of its peer group" with respect to return on assets, and therefore he found just two banks that he considered to be comparable to FNBW.

The average P/E ratio of the two banks was 13.08. The average P/Eqt ratio was 1.56. Mr. Hitt felt that FNBW was a better performer than these banks, so he used a P/E ratio of 14 and a P/Eqt ratio of 1.6. Applying these numbers to FNBW's 1992 earnings of \$1,423,000 and stockholder equity as of December 31, 1992, of \$11,249,000 resulted in prediscount values per share for FNBW of \$199.22 and \$179.98, respectively. Mr. Hitt applied a minority interest discount rate of 32 percent based, according to him, on data from Mergerstat Review. He also applied a lack of marketability discount of 45 percent, which he obtained from examining sales of restricted stock. His final value based on the P/E-ratio method was \$74.51, and his final value based on the P/Eqt-ratio method was \$67.31.

Capitalized Future Earnings

In this method, essentially the same as the earnings-based method used for JFI, Mr. Hitt sought to estimate the income that FNBW would generate in the future and then to calculate its present value. The earnings stream was projected by first applying a 4-percent annual growth rate to the asset base, to calculate average assets in each year for the next 5 years. Although FNBW's ROA for 1992 was 1.41, Mr. Hitt applied the historical ROA figure of 1.19 to each of the five yearly asset figures. Also, Mr. Hitt made certain assumptions about the amount of income that FNBW would pay to shareholders as

dividends. First, Mr. Hitt assumed that an amount of excess capital, \$2,938,280, would be paid out in year 1. Next, he assumed that FNBW would maintain a capital-to-asset ratio of 8 percent and calculated the minimum equity required to maintain that ratio. Finally, he assumed that the yearly income would be used in two ways: Part of it would become retained earnings in order to maintain the 8-percent capital-to-asset ratio; the remainder would be distributed to the shareholders. The amount distributed to shareholders was then discounted to present value using a capitalization rate of 14.7 percent.

As with JFI, Mr. Hitt used the Capital Asset Pricing Model to calculate the capitalization rate. His figure for beta, 1.05, was determined from averages of small publicly traded regional banks. To calculate the capitalization rate, he began with the rate for U.S. Government bonds as of the valuation date, which, according to him, was 7.2 percent, and he added the product of the beta of 1.05 times 7.2 percent, for a total of 14.7 percent.¹⁵ This capitalization rate already took into account any minority interest discount, so a further such discount was not applied. Mr. Hitt considered adjusting this rate to a higher number to reflect the greater risk associated with FNBW's lack of geographic diversification; but he felt that this factor was

¹⁵ Although $7.2 + (1.05 \times 7.2) = 14.76$, Mr. Hitt rounded the figure to 14.7.

offset by FNBW's traditionally low net charge-off of loans, so he made no adjustment.

Mr. Hitt also calculated a figure for FNBW's income stream in perpetuity, beginning after the initial 5-year period ended. After the 5-year period, Mr. Hitt used a growth rate of 2.5, rather than the 4 percent he used for the first 5 years. Also, he assumed that, after the 5-year period, 84 percent of FNBW's income was to be paid as dividends, because the remaining 16 percent would be needed to maintain capital requirements.

Finally, he summed the following: (1) The amount that was assumed paid out immediately as a dividend (which had present value equal to itself, because it was a current distribution); (2) the present values for each year of earnings during the initial 5-year period; and (3) the present value of the perpetuity figure. This resulted in a per-share value of \$117.22. Once again, he applied a lack of marketability discount of 45 percent. Thus, his figure for capitalized future earnings value was \$64.47.

Weighting the Methods

Mr. Hitt felt that each of the three values deserved roughly equal weight, although he believed that the capitalized future earnings value was slightly more important. Therefore, he weighted his three figures as follows: 30 percent for the P/E-ratio value of \$74.51, 30 percent for the P/Eqt-ratio value of

\$67.31, and 40 percent for the capitalized future earnings value of \$64.47. His final value was \$68.33 per share.

Court's Analysis

We found Mr. Hitt's analysis to be useful and largely correct. However, we find that there was one error in Mr. Hitt's approach: the use of a lack of marketability discount in calculating the P/E and P/Eqt ratio values. According to Mr. Hitt, he did not rely on a comparison to publicly traded companies in estimating the value of FNBW. Therefore, because the comparable companies he chose to calculate P/E and P/Eqt ratios were not publicly traded, their stock price presumably also reflected a lack of marketability. Thus, to further discount the value indicated by the comparison to nonpublicly traded companies for lack of marketability was not appropriate.

If Mr. Hitt's approach is adjusted to eliminate the lack of marketability discount from the P/E ratio and P/Eqt ratio methods, the following results are produced:

P/E value = \$135.47 (.68 x \$199.22)

P/Eqt value = \$122.39 (.68 x \$179.98)

The capitalized future earnings value of \$64.47 is unaffected by the elimination of a lack of marketability discount. Weighting the adjusted values in the same manner as Mr. Hitt produces a final value of \$103 per share.

Mr. Egan's Report

Mr. Egan's report used an approach similar to Mr. Hitt's: Finding comparable companies, calculating various ratios, and then applying the ratios to FNBW to determine its market value. Mr. Egan relied on four ratios, two of which were also used by Mr. Hitt:¹⁶ P/E, P/Eqt, price/5-year earnings (P/E5),¹⁷ and price/dividends (P/D). However, because Mr. Egan used sales of minority interests rather than acquisitions of entire banks (as Mr. Hitt did), he did not apply a minority interest discount.

Comparable Companies

To create a list of comparable companies, Mr. Egan started with a list of commercial banks based in Ohio and chose banks that satisfied four criteria: (1) Publicly available financial statements, (2) publicly held and actively traded common stock, (3) common stock price exceeding \$2 per share, and (4) assets under \$1 billion. Seven banks met these criteria.

Ratios

To calculate the P/E, P/E5, and P/Eqt ratios, Mr. Egan used the per-share traded price of each company on the date of decedent's death and obtained figures for earnings during 1992,

¹⁶ Although Mr. Hitt also employed P/E and P/Eqt ratios, his numerical values were different because he used different comparables.

¹⁷ For this ratio, Mr. Egan calculated a weighted average of FNBW'S earnings from 1988 to 1992 using the same method used in calculating a weighted average of JFI'S earnings.

earnings over 5 years, and equity from the companies' financial records. The median figures were as follows: $P/E = 11.1$, $P/E5 = 13.4$, and $P/Eqt = 1.316$.¹⁸

Mr. Egan's method of calculating the P/D ratio was more complex. First, he calculated three ratios for each of the comparable companies: P/D , dividends/5-year earnings ($D/E5$), and dividends/1992 earnings (D/E).¹⁹ The latter two were also computed for FNBW. He ranked the seven comparable companies in ascending order by P/D ratio. Mr. Egan believed that in general with respect to his sample, the P/D ratio was inversely proportional to the other two ratios. The $D/E5$ and D/E ratios of FNBW were each the second highest in the list, which indicated to Mr. Egan that the P/D ratio of FNBW should be the second lowest in the list. Thus, Mr. Egan examined the lowest and second lowest P/D ratios of the companies on the list and estimated FNBW's P/D ratio to be between the two. His result was a P/D ratio of 25.

Using the four ratios, he calculated values for FNBW as follows:

P/E ratio of 11.1 x 1992 earnings of \$1,423,000 = \$15,795,000
 $P/E5$ ratio of 13.4 x 5-year earnings of \$1,254,000 = \$16,804,000
 P/Eqt ratio of 1.316 x 1992 equity of \$11,249,000 = \$14,804,000
 P/D ratio of 25.0 x dividends of \$640,000 = \$16,000,000

¹⁸ By comparison, Mr. Hitt computed a P/E ratio of 14 and a P/Eqt ratio of 1.6, based on his comparables.

¹⁹ "Dividends" here means the previous year's dividends.

He took the average of these four numbers, \$15,850,750, and rounded to \$16 million as the value of FNBW before application of any discounts.

Discount Based on General Factors

Mr. Egan applied a 30-percent discount to his figure of \$16 million because he believed that FNBW was in general less valuable than the comparable companies from which he derived the ratios. His report discussed both "qualitative" and "quantitative" differences between FNBW and the comparable companies in his list.

Mr. Egan relied on two "qualitative" factors: FNBW's size and FNBW's small geographic market. With respect to FNBW's size, Mr. Egan stated that FNBW had total assets of \$104 million, while the comparable companies had assets of \$370 million to \$625 million. In Mr. Egan's view, smallness gives rise to certain disadvantages: The small company is less able to weather financial adversity, to attract top-quality management, to protect against emergencies, to finance growth, to compete aggressively, or to maintain depth of management. With respect to geographic area, the same types of disadvantages apply: The financial health of FNBW was tied to the economy of Pike County alone, FNBW provided fewer services, and FNBW operated fewer branches.

Mr. Egan relied on numerous "quantitative" factors. In general, according to Mr. Egan's report, FNBW was superior to the comparable companies with respect to factors relating to financial soundness and inferior with respect to factors relating to income growth potential. Mr. Egan's report made the following comparisons: FNBW had slightly less total income, and substantially less net income, than the median comparable company. Also, FNBW grew less than the median. The median had a substantially higher total income to net worth ratio. On the other hand, FNBW had a substantially higher net income to total income ratio. Thus, the net income to net worth ratio (also known as return on equity) was almost the same between the median and FNBW. With respect to the ratio of net income to total assets, also known as return on assets, FNBW substantially outperformed the median.

Mr. Egan next examined comparisons of ratios that related to the financial condition of FNBW and the median comparable company. His report made the following comparisons: FNBW had a substantially higher cash and investments to total assets ratio than the median and a substantially lower loans to total assets ratio. While both FNBW and the median had very high total liabilities to total assets ratios (typical for banks, which are usually financed by deposits, which are liabilities), FNBW's was a little lower than the median. For the net worth to total

assets ratio, FNBW's was substantially higher, indicating that FNBW was financed more through equity than the median. Mr. Egan summed up by stating: "However profitable the asset base of * * * [FNBW], the conservative nature of those assets does penalize the company's income growth and potential therefor."

Considering all of the "qualitative" and "quantitative" factors discussed above, Mr. Egan felt that FNBW was substantially less valuable than the median comparable company. To account for these factors, he applied a discount of 30 percent.

Lack of Marketability Discount

To calculate a lack of marketability discount, Mr. Egan used the same analysis, based on restricted stock sales, that he used with respect to JFI, and applied the same figure, 35 percent.

To compute the per-share value of FNBW, Mr. Egan began with his undiscounted value of \$16 million, or \$160 per share. He discounted this by 30 percent for general qualitative and quantitative factors, then discounted the result by 35 percent for lack of marketability, producing a value of \$73 per share.

Court's Analysis

We find Mr. Egan's analysis of the undiscounted value of FNBW, based on the ratios of price to net worth, earnings and dividends of comparable companies, to be cogent and persuasive. However, we do not believe that Mr. Egan has made a persuasive

case for a discount for general factors of 30 percent. To recount, Mr. Egan used a 30-percent discount because he perceived three differences between FNBW and the comparable companies: FNBW'S qualitatively inferior features (the smallness of the bank and of its geographic market), FNBW'S quantitatively superior financial position, and FNBW'S quantitatively inferior income growth potential. In our view, the first two of these factors would essentially cancel each other. The qualitative factors relied upon by Mr. Egan supposedly go to the risk involved in investing in FNBW, but it is clear that the first group of quantitative factors shows that FNBW was not a risky investment at all. Mr. Egan's report shows that, although small, FNBW was well managed, and more conservatively managed, than the median comparable company.²⁰ Thus, we are left to consider the third factor that Mr. Egan relied on, FNBW'S inferior income growth potential. Even if it is true that FNBW'S income growth was not promising, its income was very good; according to Mr. Egan's report, its return on assets (i.e., net income divided by total assets) was much better than the median.²¹ In addition,

²⁰ On this point, all the experts agreed. Mr. Hitt believed that FNBW was "in the top of its peer group" with respect to return on assets and a better performer than the two comparable banks he relied on, causing him to adjust his P/E and P/Eqt ratios accordingly. Similarly, Mr. Haywood, respondent's expert, argued persuasively that FNBW was not a risky bank.

²¹ According to Mr. Egan, return on assets "might be the most scrutinized of all banking ratios".

according to Mr. Egan's report, it paid more dividends per earnings than all but one of the comparable companies. Considering all of the evidence, we conclude that any discount for general factors within Mr. Egan's methodology should be limited to 10 percent.

If Mr. Egan's analysis is adjusted to provide a "general factors" discount limited to 10 percent, the indicated value becomes \$94 per share (undiscounted value of \$160 per share, less 10 percent for general factors, less a 35-percent discount for lack of marketability).

Mr. Haywood's Report

Mr. Haywood used a combination method of an asset-based value and an earnings-based value to estimate the value of the FNBW stock. Mr. Haywood was the only one of the experts who used an asset-based value in his analysis.

Asset-Based Value

In his calculation of asset-based value, Mr. Haywood began with the book value of stockholder equity and then made adjustments to this figure to reach market value of stockholder equity (i.e., net asset value). Book stockholder equity in FNBW, according to Mr. Haywood, was \$11,249,000. Mr. Haywood increased this by two amounts. First, according to him the market value of FNBW's securities portfolio exceeded the portfolio's book value by \$798,000, so he increased stockholder equity by this amount.

Second, he argued that FNBW's loan loss reserve (which is a liability reducing stockholder equity) of \$492,000 was too large; i.e., larger than reasonably necessary given FNBW's historical experience. During the 5-year period ending in 1992, FNBW charged off an average of only .4 percent of unpaid loans. Thus, in Mr. Haywood's view, FNBW needed a loan-loss reserve equal to only .4 percent of total loans (\$33,401,000, according to Mr. Haywood), or \$133,604 ($.4\% \times \$33,401,000$). The remaining "excess" loan loss reserve (rounded to \$358,000) was treated as an increase to stockholder equity by Mr. Haywood.

Mr. Haywood's two increases to stockholder equity totaled \$1,156,000, which was a pretax adjustment. After tax, according to Mr. Haywood, the increase to stockholder equity would be \$832,000. Adding this amount to stockholder equity, Mr. Haywood computed the net asset value of FNBW as \$12,081,000, or \$120.81 per share.

Earnings-Based Value

Mr. Haywood also used the same basic approach used by the other experts of comparing the P/E ratio of FNBW with the P/E ratios of comparable entities. For comparables, Mr. Haywood began with a list of 26 large, publicly traded banking organizations in the Midwest.²² Ten of the twenty-six banks were based in Ohio. According to him, the average P/E ratio of all 26

²² His sources were Value Line Investors Services and American Banker newspaper's list of top 225 banks.

banks was 13.7, and the average P/E ratio of the 10 Ohio-based banks was 15.1. Mr. Haywood chose to apply the higher P/E ratio of 15.1 to FNBW, in part because the underlying banking organizations were based in Ohio and in part because Mr. Haywood believed that FNBW had a strong capital position and consistent growth in earnings and dividends.²³ Applying the P/E ratio of 15.1 to FNBW's 1992 earnings of \$1,423,000 resulted in a price per share for FNBW of \$214.87.

Weighting the Results

Mr. Haywood felt that earnings deserved greater weight because of the strong earnings and dividend performance of FNBW. Thus, he gave 60 percent of the total weight to his earnings-based value of \$214.87 per share and 40 percent to his asset-based value of \$120.81 per share, for a value of \$177.25.

Lack of Marketability Discount

Mr. Haywood applied a 10-percent lack of marketability discount,²⁴ calculated as follows: After calculating his pre-discount value for FNBW of \$177.25, he estimated the lowest price at which the current shareholders of FNBW would be willing to sell their stock. He believed a shareholder would accept approximately \$160 per share. This was roughly equal to a

²³ In comparison, Mr. Hitt used a P/E ratio of 14, and Mr. Egan used a P/E ratio of 11.1.

²⁴ Mr. Hitt's lack of marketability discount was 45 percent, and Mr. Egan's was 35 percent.

10-percent discount. In choosing this discount, Mr. Haywood considered the 12,000 shares of stock held by decedent at her death to be a "swing block" of stock, and this convinced him that the lack of marketability discount should be relatively small. His final value for FNBW, after applying the 10-percent lack of marketability discount, was \$159.53 per share.

Court's Analysis

We believe there are several problems with Mr. Haywood's analysis but that adjustments to correct for his errors can be made which result in a reliable estimate of the value of the FNBW stock.

The first problem with Mr. Haywood's analysis is that he failed to apply a minority interest discount to his asset-based value. "Ignoring discounts for lack of control [i.e., minority interest] and lack of marketability is contrary to long-established valuation methods well accepted by the Courts in cases presenting the value of stock in closely held corporations." Estate of Newhouse v. Commissioner, 94 T.C. at 249. Mr. Haywood's method was to estimate the net asset value of FNBW and to treat this as the market value. However, the owner of a minority interest in FNBW would not have control of its assets. Thus, a minority interest discount is necessary to achieve an accurate asset-based value for FNBW. Applying a minority interest discount of 32 percent, the figure used by Mr.

Hitt,²⁵ to Mr. Haywood's asset-based value of \$120.81 per share results in an asset-based value of \$82 per share.

The second problem with Mr. Haywood's approach relates to his earnings-based value and his selection of a P/E ratio of 15.1, which we find to be too high. Mr. Haywood acknowledged that he used banks that were substantially larger than FNBW for his comparable companies but contended that he was required to do so by Rev. Rul. 59-60, 1959-1 C.B. 237, 238-239. See Estate of Newhouse v. Commissioner, 94 T.C. at 217 (Rev. Rul. 59-60 "has been widely accepted as setting forth the appropriate criteria to consider in determining fair market value"). In Mr. Haywood's view, Rev. Rul. 59-60, supra, requires the selection of companies that are comparable in the sense of being "engaged in the same or similar line of business", but not comparable in size. In his view, the purpose of Rev. Rul. 59-60, supra, was to provide the proper method for calculating the fair market value of small, closely held companies using actively traded comparable companies, so that by definition the comparable companies would be significantly larger and no adjustment for size should be made. We reject this view. It is beyond dispute that we must consider all relevant evidence. See, e.g., Northern Trust Co. v. Commissioner, 87 T.C. 349, 375 (1986). Thus, while the sale price of stock in businesses "engaged in the same or a similar

²⁵ Only Mr. Hitt employed a minority discount in his analysis of FNBW, as Mr. Egan's methodology did not require one.

line of business" is relevant, it is not the only factor. Estate of Hall v. Commissioner, 92 T.C. 312, 336 (1989); sec. 20.2031-2 (f), Estate Tax Regs. We believe that size is a relevant factor in this case, at least when comparing FNBW to the substantially larger companies in Mr. Haywood's sample.²⁶ Because Mr. Haywood believed that Rev. Rul. 59-60, supra, precluded an adjustment for size, we are puzzled as to why he assumed an adjustment for location was appropriate; i.e., using the (higher) average P/E ratio of banks in Ohio only rather than the (lower) average P/E ratio of banks in the Midwest. Thus, we find that he has not made a persuasive case for the higher average. We believe he should have used the P/E ratio of his entire sample of 13.7. Based on FNBW's 1992 earnings of \$1,423,000, use of the lower P/E ratio results in an earnings-based value of \$195 per share.

Finally, we disagree with Mr. Haywood's method and result in choosing a lack of marketability discount of 10 percent. Rather than using comparisons such as those used by Mr. Hitt and Mr. Egan, Mr. Haywood merely offered his subjective judgment of what price a seller of the stock would accept. We find this method somewhat arbitrary and unsupported in the authorities and case law; moreover, it considers only half of the transaction; that is, what the willing seller would accept, but not what the willing buyer would pay. Moreover, contrary to his belief, we do

²⁶ The smallest bank in Mr. Haywood's sample had more than 10 times the assets, and the deposits, of FNBW.

not believe the record supports his conclusion that the 12,000 shares owned by decedent at the time of her death would be a "swing block".²⁷ Accordingly, we reject the 10-percent lack of marketability discount used by Mr. Haywood and find instead that the lack of marketability discount of 35 percent estimated by Mr. Egan is appropriately employed here. Accepting Mr. Haywood's weighting of 60 percent for the earnings-based value of \$195 and 40 percent for the asset-based value of \$82, the value before a lack of marketability discount would be \$150. Applying a lack of marketability discount of 35 percent produces a final value of \$97 per share.

Conclusion: The Value of Decedent's Shares in FNBW

When each of the experts' computations of the value of the FNBW stock is adjusted to eliminate the errors that we perceive in their analyses, the results do not diverge greatly. As adjusted, the valuations of Messrs. Hitt, Egan, and Haywood are \$103, \$93, and \$97 per share, respectively, a range of less than 11 percent. In these circumstances, we conclude that the most reliable estimate of value is an average of the three, or \$98 per

²⁷ Mr. Haywood testified that the block of 12,000 shares might be a swing block if it was purchased by family members who already owned a sufficiently large portion of the shares of FNBW. This view fails to consider the hypothetical buyer of the shares. See Estate of Hendrickson v. Commissioner, T.C. Memo. 1999-278 (citing Estate of Curry v. United States, 706 F.2d 1424, 1428-1429, 1431 (7th Cir. 1983)).

share. Thus, we find that decedent's 12,000 shares of FNBW stock at the time of her death were worth \$98 per share, or \$1,176,000.

We have considered all of the arguments raised by the parties, including the numerous criticisms of each expert's report, and find them without merit to the extent they are not specifically addressed herein.

To reflect the foregoing,

Decision will be entered
under Rule 155.